improved medication adherence, better virologic suppression, lower hospitalization rates, and lower health care costs. The objective of this study was to estimate the budget impact to a US health care plan of the use of EVG/COBI/FTC/TDF in adults with HIV who are treatment-naïve or currently on treatment with no resistance to the components of EVG/COBI/FTC/TDF. **METHODS:** The model estimates total direct health care costs associated with HIV management before and after the introduction of EVG/COBI/FTC/TDF. HIV epidemiology, hospitalization rates, and adverse event incidence and their associated costs were calculated using results of published studies or publically available sources. Regimen utilization was obtained from recent chart audit analysis and EVG/COBI/FTC/TDF market share was projected to come from protease inhibitor (PI)-based regimens in relative proportion to each regimen's market share. The budget impact was calculated annually and cumulatively over a 3-year period without discounting, following standard methodology for budget impact analyses. **RESULTS:** For a hypothetical health care plan with 1 million members, the model estimated 450 HIV-positive members currently on treatment and 72 HIV-positive members initiating HIV therapy each year. Over a 3-year period, the introduction of EVG/COBI/FTC/TDF was expected to result in greater use of single tablet regimens and lower use of more expensive PI-based regimens, yielding lower pharmacy costs ($226,194, 0.5% lower), fewer hospitalizations (1.1% fewer), and lower hospitalization costs ($31,288, 1.1% lower) versus scenario without EVG/COBI/FTC/TDF. Total cost savings over 3 years were estimated at $240,375 (0.4% lower), equivalent to a reduction in per-member-per-month (PMPM) costs from $1.61 to $1.60. PMPM results were insensitive to changes in parameters. **CONCLUSIONS:** The introduction of EVG/COBI/FTC/TDF is expected to result in fewer hospitalizations with a negligible impact on pharmacy and total costs over a 3-year period for a US health care plan.

PIN19

BUDGET IMPACTS OF PROBIOTICS IN CONTROLLING UPPER RESPIRATORY TRACT INFECTIONS IN FRANCE

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OBJECTIVES: Two meta-analyses associated with a public health model demonstrated that probiotics (live microorganisms which when administered in adequate amount confer a health benefit on the host) have an important public health impact: they reduce upper respiratory tract infection (URTI) episodes with less antibiotics and sick leave prescriptions, in France. This analysis reports the budget impact for the National Health System (NHS) and the Nation. **METHODS:** The public health impact model (1/1,000 virtual age-gender standardized population generated with a Markov model: 1-day cycles, 2011-2012 winter period, URTI incidence from a General Practitioner [GP] network) was used. Economic perspectives were society, NHS and family. The analysis was limited to patients having visited a GP. Resource utilization came from the GP network. Unit costs were applied: Ameli.fr for drugs, Classification Commune des Actes Médicaux for GP visits, gross domestic product (GDP)/capita or allowances for sick leaves. Outcomes included direct medical and indirect costs. Results were reported according to each meta-analysis, Cochrane and York Health Economics Consortium (YHEC). **RESULTS:** The economic impact of probiotics was about €95 million saved from the Society perspective according to YHEC (Family: -€21.7 million; NHS: -€15.4 million) and €229.1 million according to Cochrane (Family: -€130.4 million; NHS: -€34.6 million). Absenteeism was the main driver for the society perspective representing 98% (YHEC) or 78% (Cochrane) of the savings. For the NHS, the main driver was sick leave (94%, YHEC-based) or GP visit (67%, Cochrane-based): avoiding URTI episodes (Cochrane) generates more visit savings than reducing disease duration (YHEC). More savings were observed in children, active smokers and people with more human contacts compared to the general population. **CONCLUSIONS:** Probiotics savings are substantial, whether they reduce URTI episodes frequency or duration. Noteworthy, 2011-12 winter URTI incidence rate was low and this analysis focused on the 1% URTI accessing the NHS.

PIN20

ANTIBACTERIAL TREATMENT OF METICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS COMPLICATED SKIN AND SOFT TISSUE INFECTIONS: A BUDGET IMPACT ANALYSIS IN THE GREEK HOSPITAL SETTING

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OBJECTIVES: Meticillin-resistant staphylococcus aureus (MRSA) is an important cause of antimicrobial-resistant health care-associated infections worldwide. Its prevalence remains high in the Greek hospital setting. Complicated skin and soft tissue infections (cSSTIs) due to MRSA are associated with prolonged hospitalization, additional costs of care and significant morbidity. The purpose of this study was to conduct a budget impact analysis relative to different management scenarios for MRSA-cSSTIs from a hospital perspective. **METHODS:** Equal efficacy for the pharmacotherapies under evaluation was assumed and resource use was elicited via an expert panel. The model was based on a decision tree for the management of hospitalized patients with MRSA-cSSTIs, simulating costs and outcomes for the duration of hospitalization according to the therapeutic scenario, including empiric and first-line therapies. Inpatient costs consisted of hospitalization, diagnostic, medical and antibiotic costs. Economic results (Euros 2013) reflect the hospital setting. **RESULTS:** Total per patient cost according to first-line agent was €2,458, €2,730, €2,850, €3,495 and €3,098 and mean length of stay (LOS) was 9.2, 12.5, 10.3, 13.0 and 14.0 days for linezolid, vancomycin, daptomycin, tigecyline, teicoplanin respectively. An estimated 10,287 MRSA-cSSTI patients are treated annually in Greek hospitals. Thus, by increasing the use of linezolid by 11% over a three-year period, for the management of MRSA-cSSTIs, this could result in savings of €331,602 for the hospital budget (current:€29,081,597, projected:€28,749,994). By reducing the LOS for linezolid patients from 9.2 days (current LOS in Greece as per expert panel) to 7.6 days to match data from a large phase IV study in MRSA-cSSTIs (Itani 2010), potential savings amount to €808,673. **CONCLUSIONS:** The analysis corroborates literature findings with regards to the early switch/early discharge potential and outcomes due to oral antibacterial switching in cSSTIs. Increased use of linezolid in the treatment of MRSA-cSSTIs could result in substantial savings for the Greek hospital budget.

PIN21

COST REDUCTION ASSOCIATED WITH USE OF SUBGLOTTIC ASPIRATION TO REDUCE VENTILATOR-ASSOCIATED PNEUMONIA IN TURKEY

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OBJECTIVES: Ventilator-associated pneumonia(VAP) is a serious complication risk for patients who require invasive mechanical ventilation(IMV). VAP is associated with longer intensive care unit and hospital stays, which may increase health care expenditures. VAP may occur in 8% of IMV patients. Subglottic aspiration (SA) may decrease VAP by up to 45% in IMV patients. The goal of this analysis is to calculate the potential cost reduction associated with SA use for VAP reduction in IMV patients in Turkey. **METHODS:** A literature analysis was conducted in PubMed(2000-present) to determine the published cost of VAP in Turkey. Published costs were used for the conversion to Turkish Lira(TL). An annual inflation rate of 3% was applied to the cost data to project the estimated cost in 2013. The exchange rate for USD to TL was estimated at 1.8. A weighted average of the number of patients in each study was used to calculate the cost of treatment. The cost of SA to the Social Security Institution (SGK) was calculated as 33.94 TL, which includes the cost of the SA tube(TaperGuard EVAC; 25 TL) and the SA service reimbursement amount from the SGK of 8.94 TL. 8% and 45% were taken as the VAP rate and reduction with SA rate in IMV patients, respectively. The number of patients requiring IMV in a hospital was estimated at 1000 per year. **RESULTS:** The average inpatient costs of IMV patients with and without VAP were calculated to be 13.556 TL and 3.971 TL, respectively. The total VAP cost, based on 80 VAP cases in 1,000 IMV cases without SA, was calculated as 1.085.297 TL. A hospital using SA for all IMV cases is estimated to have VAP costs equal to 488.384 TL and SA costs of 33.940 TL for a total cost of 522.324 TL. Cost reduction from SA use was calculated as 562.973 TL. **CONCLUSIONS:** VAP increases health expenditures by 9.595 TL per patient. A hospital with 1,000 IMV patients per year that uses SA in all IMV patients may realize an estimated cost reduction of 562.973 TL associated with use of SA in IMV patients.

PIN22

BUDGET IMPACT OF AN INDIVIDUALIZED APPROACH IN THE TREATMENT OF HBEAG-NEGATIVE CHB PATIENTS EXPLOITING THE WEEK-12 PEGINTERFERON ALFA-2A STOPPING RULE IN ITALY

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OBJECTIVES: Treatment options for chronic hepatitis B (CHB) are the direct inhibition of viral replication by continuous administration of nucleosides analogues (NUCs) or a finite 48-weeks course of peg-interferon (PEG). PEG can induce the off-therapy immune control of CHB leading to HBsAg loss/anti-HBs seroconversion but at a low success rate. On the other hand life-long treatment with NUCs is expensive. Exploiting the early identification of PEG-non-responders by combined HBV-DNA and HBsAg quantification at week-12 (stopping-rule), a new sequential therapeutic strategy may benefit both patients and payers. We measured the impact on the Italian National Health Service budget using the PEG-week-12-stopping-rule in the treatment of HBeAg-negative CHB. **METHODS:** A Markov model was developed over a 5 year horizon in the states: CHB, virologic response, relapse, HBsAg clearance, compensated and decompensated cirrhosis, hepatocarcinoma, liver transplant, post-liver transplant and death. The target population (treatment naïve CHB patients) was determined based on Italian national population forecasts and epidemiological data. The current mix of treatment with NUCs (entecavir, tenofovir, adefovir, lamivudine and telbivudine) and PEG (with no stopping rule) was compared with a mix based on a hypothetical uptake of PEG (with the stopping rule). The percentage of uptake from NUCs started at 25%, increasing over time. **RESULTS:** The estimated impact on the Italian NHS budget, over 5 years of treatment, resulted in a saving of approximately €74 million, 95% of which accounted for drug cost. The beneficial impact of the stopping-rule became clear from the second year, when a break-even point was reached. **CONCLUSIONS:** The large estimated savings in drug costs following the uptake of PEG + stopping-rule in the treatment of CHB HBeAg negative patients, together with previously published cost-effectiveness results, demonstrate a potentially advantageous profile of such a strategy, that could allow for more efficient use of health care resources.

PIN23

EXAMINING THE RELATIONSHIP BETWEEN COUNTRY-LEVEL FACTORS AND VACCINE WASTAGE: A DATA DRIVEN MODEL OF SESSION SIZES IN BANGLADESH, MOZAMBIQUE, INDIA (UTTAR PRADESH), AND UGANDA

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OBJECTIVES: Vaccination is a cost-effective intervention; however limited infrastructure in developing countries can pose significant challenges in efficient vaccine delivery. Countries prefer multidose presentations due to lower acquisition and cold chain costs, but open vial vaccine wastage is a major part of program cost. The aim of this study was to examine country-level factors that impact open vial wastage. **METHODS:** A demographics-based budget impact model with a 10 year time horizon was developed in Excel v14 using Palisade's @Risk v6.0 software. The model estimated daily vaccine utilization and wastage rates for Pentavalent, Pneumococcal, HPV and IPV using Lee's (2010) model, calibrated to arrival distributions based on field data session sizes from Bangladesh, Mozambique, India (Uttar Pradesh), and Uganda. The statistical distribution was determined using maximum likelihood, stratified by urban/rural for each clinic type. The model ran 1000 iterations, with each drawing independently from the statistical distributions of session sizes by clinic type. **RESULTS:** The negative binomial family offered the best fit to session size by Akaike Information Criterion. The leading